Question 1

1. What is the optimal value of alpha for ridge and lasso regression?
   a. Rigde Regression: alpha = 0.01
   b. Lasso Regression: alpha = 0.00001
2. What will be the changes in the model if you choose double the value of alpha for both ridge and lasso?
   a. There is no significant chnge in R2 score after doubling the alpha value
3. What will be the most important predictor variables after the change is implemented?
   a. GrLivArea
   b. OverallQual
   c. BsmtFinSF1
   d. TotalBsmtSF
   e. MasVnrArea

Question 2

1. You have determined the optimal value of lambda for ridge and lasso regression during the assignment. Now, which one will you choose to apply and why?
   a. There are total 77 predictor variable to predict the house price.
   b. Having large number of predictor variable will make the model complex and will have high variance.
   c. Lasso Regression brings the coefficient value to 0 by adding penalty term. Thus it will effectively remove the unimportant predictors.
   d. So, in this case choosing Lasso Regression is more appropriate.
   e. Also R Square score is better for Lasso than Ridge

Question 3

1. After building the model, you realised that the five most important predictor variables in the lasso model are not available in the incoming data. You will now have to create another model excluding the five most important predictor variables. Which are the five most important predictor variables now?
   a. 1stFlrSF
   b. 2ndFlrSF
   c. Condition2
   d. LotArea
   e. GarageCars

Question 4

1. How can you make sure that a model is robust and generalisable?
    a. Model has limited number of independent variables.
    b. Coefficients values are as low as possible
2. What are the implications of the same for the accuracy of the model and why?
    a. R2 Score
    b. MSE
    c. RMSE